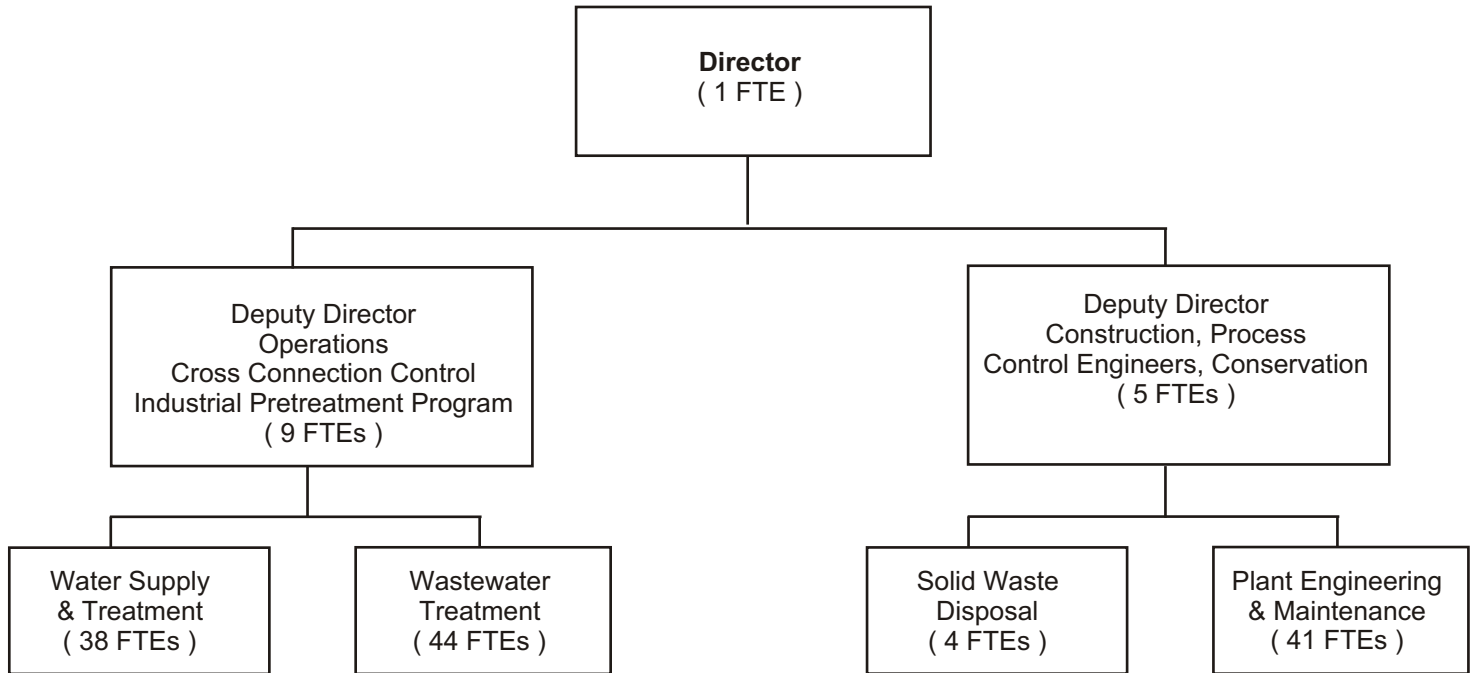


Environmental Resources (142 FTEs)



ENVIRONMENTAL RESOURCES

To provide safe and sufficient water for all citizens of Durham, to protect the environment through effective water conservation and reclamation and to provide efficient and cost-effective disposal of Durham's solid waste.

RESOURCE ALLOCATION

	Actual FY 2000-01	Adopted FY2001-02	Estimated FY2001-02	Adopted FY2002-03	Change
<i>Non-grant</i>					
Appropriations					
Personal Services	\$ 6,555,992	\$ 7,031,415	\$ 6,679,844	\$ 7,135,798	1.5%
Operating	14,955,117	16,172,389	15,591,466	16,274,645	0.6%
Capital	193,399	580,953	391,658	152,850	-73.7%
Transfers to Other Funds	5,064	-	-		
Total Appropriations	21,709,572	23,784,757	22,662,968	23,563,293	-0.9%
Programs					
Administration	\$ 1,111,462	\$ 1,159,297	\$ 1,133,390	\$ 1,335,389	15.2%
Laboratory Service	\$ 628,935	\$ 673,086	\$ 638,988	\$ 622,044	-7.6%
Plant Engineering & Maintenance	2,987,624	3,674,566	3,194,570	3,343,141	-9.0%
Water Supply Treatment	4,177,931	5,197,800	4,855,997	4,982,879	-4.1%
Waste Water Treatment	6,216,168	6,397,373	6,556,834	7,013,449	9.6%
Solid Waste Disposal	6,587,319	6,684,282	6,283,189	6,266,391	-6.3%
Program Total	21,709,439	23,786,404	22,662,968	23,563,293	-0.9%
Full Time Equivalents					
Administration	13	13	13	15	2
Laboratory Service	11	11	11	10	(1)
Plant Engineering & Maintenance	41	41	41	41	
Water Supply Treatment	40	40	40	38	(2)
Waste Water Treatment	36	36	36	34	(2)
Solid Waste Disposal	5	4	4	4	
Full Time Equivalents	146	145	145	142	(3)
Part-time FTEs					
Revenues					
Water & Sewer Fund	\$ 12,041,639	\$ 17,102,122	\$ 12,062,420	\$ 13,424,993	-21.5%
Solid Waste Fund	9,667,800	9,563,950	10,600,548	10,138,300	6.0%
Total Revenues	\$ 21,709,439	\$ 26,666,072	\$ 22,662,968	\$ 23,563,293	-11.6%

FY 2002-03 BUDGET ISSUES

- No changes are made to levels of service. Delayed maintenance/replacement of unfunded items may lead to increased costs and expenses in the future.
- A reduction in tonnage at the Transfer Station is projected as a result of competition, which will result in reduced revenues.

SUPPORT OF CITY COUNCIL PRIORITIES

Managing Growth:

- This budget provides for the reliable operation and maintenance of water and wastewater treatment facilities, with adequate capacities to meet essential needs to provide safe drinking water as well as wastewater treatment. These are necessary components for maintaining quality of life and have a direct impact on planning and growth management of the community.
- This budget anticipates that the Department's Plant Engineering & Maintenance Division can adsorb the operation and maintenance needs of additional wastewater pumping stations added this past year and for FY 2002-03. Currently, the Department operates and maintains 55 wastewater pump stations, an increase of 10% over last year, with no additional requests in staffing for FY03.
- This budget funds certain aspects of long range planning for water, wastewater and solid waste disposal services as key elements of support for growth management as well as protection of the environment. Since 1992 treatment capacities have increased 79%, while staffing has been reduced 15%, to meet the needs of a growing community.

Public Safety:

- The Environmental Resources department provides critical services necessary for the public health and safety of the City by providing safe drinking water and water for adequate fire protection.
- The department has requested a grant from the EPA to support efforts to increase security at water plants and facilities.
- This budget funds increased staffing at the water plants in the off-shifts as an added security measure.

Fiscal Responsibility:

- The department continues to provide and promote self-evaluation, benchmarking opportunities and other sound business practices in an effort to remain competitive with other cities and utilities, promoting a positive image for the City and the services provided.
- The department continues to support and expand automation of plant operations with the goal of gaining chemical and power efficiencies and minimizing staff requirements.
- Efforts continue to develop new sources of revenue including initiatives such as Landfill Gas development and use, sales of yard waste compost and mulch products, and contract water and reclaimed water sales.
- This budget provides for oversight of the contracts related to the Transfer Station operations, including solid waste disposal, and reflects the City's portion of revenues from the sale of mulch and compost.

DEPARTMENTAL EFFICIENCY MEASURES

- There have been zero violations of drinking water rules/regulations or solid waste
- The department has experienced an increase of 10% (from 50 to 55) more wastewater pumping stations, yet continues to operate and maintain them with current staffing levels.
- Over the last 10 years there has been a 79% increase in treatment capacities, while through fiscal responsibility and management of expenses, FTE's have decreased by 15%.

UNFUNDED ITEMS

• Small tractor/loader SDWRF	30,000
• Atomic Absorption Unit	20,000
• Maintenance Management System Upgrade	20,000
• Plant Operator Position	33,168
• Senior Laborer position at SDWRF.	24,762
• Senior Engineering Tech at Administration	42,810

PROGRAMS

Support Services

In support of the goals of managing the City's growth and promoting fiscal responsibility, the Environmental Resources Department administers a broad range of environmental programs. These efforts provide critical services to the citizens of Durham and are related to water quality, wastewater treatment, industrial activity and solid waste disposal. Support services include department administration, plant engineering and maintenance and laboratory services.

Administration **\$1,335,389**
FTE's 15

Administration is tasked with the long-range planning processes necessary for providing adequate water resources, wastewater treatment facilities and solid waste disposal facilities to meet the needs of our growing community. Personnel manage the on-going evaluation and improvement of departmental facilities and regulatory compliance issues, including administering the City's Industrial Waste Pretreatment Program that enforces the City's Sewer Use Ordinance and supervision of the Cross Connection Control unit, which insures the protection of the potable water system. Specialized departmental programs in water conservation, resource management and public education are also included in this core area.

Laboratory Services **\$622,044**
FTE's 10

Laboratory Services provides lab analysis for water, wastewater and storm water programs.

Plant Engineering & Maintenance **\$3,343,141**
FTE's 41

Plant Engineering & Maintenance provides all major maintenance and minor construction support for water, wastewater and solid waste disposal facilities. Expenses for support services are apportioned to the appropriate core services of water, wastewater and solid waste disposal as they relate to our performance indicators.

GOAL: To provide a safe work environment for all departmental employees

OBJECTIVE: To continue to minimize accidents and incidents which involve lost employee work time and/or property damage

STRATEGY: To continue the efforts of the Department's safety committee, to continue safety training, and to reinforce safety incentive program

	Actual	Estimated	Projected
MEASURE:	2001	2002	2003
Lost time incident rate	1.7%	2.0%	2.0%

Water Supply and Treatment

\$4,982,879

FTE's: 38

This core service area is responsible for providing a safe, reliable and economical supply of water to the citizens of Durham City and County. Through optimizing treatment processes, maximizing water transfer strategies and conducting monitoring activities, staff ensures that adequate supplies of consistently high quality drinking water are available to Durham's water customers. The Water Supply and Treatment Division (WS&T) operates and maintains two conventional water treatment facilities with a combined treatment capacity of 52 million gallons per day (MGD) and two surface water reservoirs. Service is provided by operating equipment and adjusting treatment technologies to optimize the physical and chemical processes important in effective water treatment and by selecting pumping scenarios that assure adequate supplies at minimum costs. This level of service supports community goals by providing reliable, critical services for citizens and, thereby maintaining a safe and stable environment.

GOAL: To provide sufficient quantities of high quality drinking water to all of Durham's customers at the lowest possible cost

OBJECTIVE: No violations of regulations or requirements during FY 2002-2003.

STRATEGY: Maintain facilities and equipment so that high quality treatment is provided 100% of the time. Continue studies for the investigation of process alternatives and improvements for capacity expansion.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
# of violations of regulations/requirements	0	0	0

OBJECTIVE: Plan for system growth and system improvements.

STRATEGY: Continue to track and analyze water demand.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
Annual average demand (MG)	12758	12000	11300

OBJECTIVE: Operate the water supply and treatment facilities to minimize increases in unit cost (\$/MG) as the system demand increases and the need for infrastructure improvements increase.

STRATEGY: Optimize the water treatment process with careful monitoring and control of chemical feed equipment. Continue to minimize costs for pumping while maintaining adequate supply by using "Time-of-Day" electric rates and water transfer by hydropower.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
\$ per MG treated	\$423	\$418	\$543

Wastewater Treatment**\$7,013,449****FTE's: 34**

This core service area provides the citizens of Durham with cost-effective wastewater treatment and residuals management. This core service is accomplished by optimizing the treatment processes so that the North Durham and South Durham facilities discharge effluent of consistently high quality in compliance with State permit requirements. The North and South Durham work groups operate and maintain state-of-the-art tertiary treatment facilities, each with a permitted capacity of 20 million gallons per day (MGD). North Durham personnel assist the Department's Solid Waste Disposal Division with the Household Hazardous Waste (HHW) Program and by conducting monitoring activities related to landfill post closure monitoring. The personnel at the South Durham facility also include those in the Department's Laboratory Services Section. This level of service by this core area supports community goals by protecting the environment for the citizens of Durham, for downstream users of the water receiving Durham's discharges and others potentially affected by our residual management operations. This service also includes wastewater treatment costs for city wastewater flows to the County wastewater treatment plant.

GOAL: To provide effective wastewater treatment services so that the needs of Durham's customers can be met in a cost-effective manner

OBJECTIVE: No violations of rules and regulations at the water reclamation facilities during FY 2002-2003.

STRATEGY: Maintain facilities and equipment so that adequate treatment is provided 100% of the time. Increase back-up power at SDWRF.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
# of violations of regulations/requirements for	3	1	0

OBJECTIVE: Monitor annual average flows for assessment of remaining capacity.

STRATEGY: Continue to track and analyze flows relative to system capacity. Continue efficiency improvements at both wastewater plants.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
Annual average flow demand (MG)	7000	5800	6800

OBJECTIVE: Operate the water reclamation facilities to minimize increases in unit cost (\$/MG) as the system demand increases and the need for infrastructure improvements increase.

STRATEGY: Optimize the water reclamation process improvements. Continue to minimize costs by efficient energy usage strategies and effective staff deployment.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
\$ per MG treated	\$874	\$880	\$1,065

Solid Waste Disposal Services

\$6,266,391

FTE'S: 4

This core service area provides for disposal of the solid wastes that are generated in the City and County by residents, businesses, industry and institutions. The disposal services includes the contract operation of the Solid Waste Transfer Station, the administration of the Household Hazardous Waste (HHW) Program, the monitoring and maintenance of the closed landfill, the management of the yard waste compost contract operations and assisting in the long range planning for solid waste disposal alternatives. These services are vital to the health and economic development of Durham's growing community. The disposal facilities are part of the local infrastructure.

GOAL: To provide responsive solid waste services to the citizens of Durham, which include disposal options for domestic, commercial and institutional wastes as well as yard waste, construction/demolition products, and administration of household hazardous wastes and other specialized materials.

OBJECTIVE: No violations of rules and regulations at the solid waste disposal facilities during FY 2002-2003

STRATEGY: Optimize operations by careful monitoring, process improvements and proper staffing levels.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
# of violations of regulations/requirements	0	0	0

OBJECTIVE: Off-loading of vehicles at the Transfer Station to be completed in 20 minutes or less during off-peak hours and in 60 minutes or less during on-peak hours.

STRATEGY: Continue to record traffic levels as indicators of high service demand times and staff accordingly. Operate Customer Convenience Center for small vehicles.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
% of time standard is met at Transfer Station	100%	100%	98%

OBJECTIVE: To meet customers' needs while minimizing increases in unit cost (\$/ton)

STRATEGY: Monitor private contractor to assure quality services. Operate a customer convenience area at the Transfer Station.

MEASURE:	Actual FY 2001	Estimated FY 2002	Projected FY 2003
\$ per ton disposed	\$37.53	\$47.40	\$51.75

INITIATIVES COMPLETED FY 2001-2002

- Completed design and began construction for Brown Water Treatment Plant Phase I improvements
- Successful conversion to new disinfectant (chloramines) at the City water plants to meet new Safe Drinking Water Act regulations
- Completed and distributed the Utility's annual Water Quality Report and Consumer Confidence Report.
- Completed Teer Quarry Feasibility Study
- Generated additional revenue by supplying the towns of Cary and Morrisville drinking water in accordance with the contract for committed sales
- Began repairs to Little River Dam and spillway
- Completed and distributed the Utility's annual wastewater collection system report in accordance with State's mandate
- Completion of multiyear program to install generators at permanent wastewater pumping stations for increased reliability
- Successfully met the needs of our customers, as evidenced by our Customer Service Standards reports throughout the year

MAJOR INITIATIVES FY 2002-2003

- Complete first phase of Brown Water Treatment Plant improvements, including expanded capacity from 30 MGD to 39 MGD
- Incorporate Operation & Maintenance of six new pump stations into the City (four as a result of transfer from the County in 1972 agreement)
- Continue implementation of new water treatment processes for enhanced removal of disinfection by-products using chloramines at the water plants
- Continue work to develop landfill gas utilization applications at the North Durham Water Reclamation Facility and other possible sites
- Continue major maintenance work for repair project at Little River Dam and spillway
- Complete major water distribution system interconnection with the City of Raleigh as an emergency back-up source
- Continue development of implementation for Water & Sewer Strategic Plan
- Perform Security assessments/improvements at Environmental Resources Facilities (CIP project)
- Painting of the Ellis Road Water Tank and construction of a new elevated tank (CIP project)